TPA 玖钧传动 Motion Control

# STEEL BASE LINEAR MODULES

# 钢基模组


详细代理商资料查询TPA官网 Please check TPA official website for detailed agent information

华东制造基地：East China manufacturing base:
电 话 Tel:0512-50127418
地 址：江苏省昆山市高新区莱斯路15号
Address: No.15 Laisi Road, High-tech Zone, Kunshan City, Jiangsu Province

华南制造基地：South China manufacturing base:
电 话 Tel:0755-84644758
地 址：深圳市坪山区坑梓街道金沙社区东联工业区5号玖钧产业园
Address: Jiujun Industrial Park, No.5 Donglian Industrial Zone, Jinsha Community, Kengzi Street, Pingshan District, Shenzhen City

山东制造基地：Shandong manufacturing base
地址：山东省济南市历城区 临港智能制造产业园7号 1号楼1#-A
Address:1# - A, Building 1, No. 7, Lingang Intelligent Manufacturing Industrial Park, Licheng District, Jinan City, Shandong Province

宁波制造基地：Ningbo manufacturing base
地 址：宁波市奉化区江口街道四明东路299号启迪工业园
Address: Tu Industrial Park, 299 Siming East Road, Jiangkou Street, Fenghua District, Ningbo City

上海分公司：Shanghai Branch
地 址：上海市松江区车墩镇北松公路5255号(智兆大厦)
Address: No.5255 Beisong Highway, Chedun Town, Songjiang District, Shanghai (Zhizhao Building)

北京办事处：Beijing office:
地 址：北京经济技术开发区科创十四街6号院1号楼
Address: Building 1, Yard 6, Kechuangshisi Street, Beijing Economic and Technological Development Zone

无锡办事处：Wuxi office:
地 址：无锡新吴区浩展大厦
Address: Haozhan Building, Xinwu District, Wuxi

浙江办事处：Zhejiang office:
地 址：浙江省绍兴市上虞区江扬路888号中富大厦
Address:Zhongfu Building, 888 Jiangyang Road, Shangyu District, Shaoxing City, Zhejiang Province, China

华中办事处：Central China office:
地 址：武汉市江夏区关南四路35号东港科技产业园
Address: Donggang Science and Technology Industrial Park, No.35 Guannansi Road, Jiangxia District, Wuhan City

东莞办事处：Dongguan office:
地 址：东莞市松山湖研发五路1号林润智谷6栋
Address: Building 6, Linrun Zhigu, No.1 R&D Fifth Road, Songshan Lake, Dongguan City

深圳办事处：Shenzhen office:
地 址：深圳市龙华区龙华街道龙观东路57号时代大厦
Address: Times building, No.57,Long Guan East rd, Longhua district, Shenzhen



版权所有※翻印必究 本型录内容如有变更，恕不另行通知，敬请谅解。 The contents of this catalogue are subject to change without prior notice.


TPA 网站 TPA website

微信公众号 Wechat public account

产品资料 Product Information

抖音号 Douyin

Solutions

ISO 9001

CE


产品型录编号:TPA-BD-ZE-004


TPA 玖钧传动·智造兴邦



玖钧传动·智造兴邦





# 联轴器
Coupling



## 膜片联轴器安装注意说明 Notes on Installation of Diaphragm Coupling

锁付螺丝时有相对应之锁固力，请参阅下表，切勿过度施力或是未锁紧。
locking force when locking screws, please refer to the following table, do not overexert or unlocked.

在夹紧螺丝处于松动状态下，请确认连轴器是否能沿轴向和旋转方向轻轻移动。如果不能平稳移动的话，需重新调整两个轴的同心度（马达锁固螺丝）。

When the clamping screw is loose, please confirm whether the coupling can move slightly in the axial and rotational directions. If you can't move smoothly, you need to readjust two. Concentricity of shaft (motor locking screw).

两个轴的同心度若差异太大时，将产生异音或是造成连轴器损坏。
If the concentricity of the 2 axes is too large. it will cause abnormal sound or cause danage to the coupl ing.

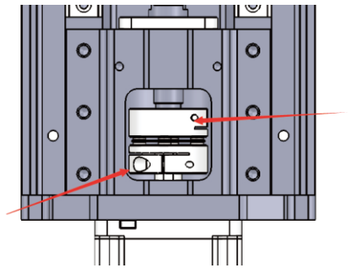


图1 Figure 1

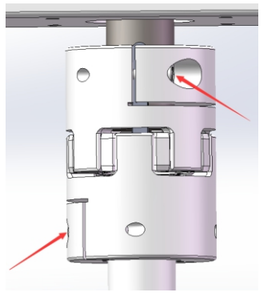


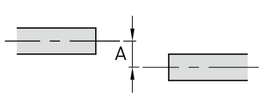
图2 Figure 2

| 尺寸 Size | 夹紧螺栓 Clamping bolt | 锁紧扭矩 Locking torque (N·m) |
|---|---|---|
| 20 | M2.5 | 1.0~1.1 |
| 25 | M2.5 | 1.0~1.1 |
| 30 | M3 | 1.5~1.9 |
| 35 | M4 | 3.4~4.1 |
| 40 | M4 | 3.4~4.1 |
| 50 | M5 | 7.0~8.5 |

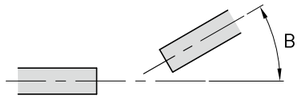
如图1、2先套上联轴器，用手先转动，检测同心度，然后按照左图扭力锁紧螺丝。
As shown in figure 1、2,first put on the coupling, turn it by hand to detect the concentricity,and then lock the screw according to the torsional force in the left figure.

## 螺杆肩部与电机轴两轴组装时，需注意以下三种基本偏差，说明图示如下：
Whenassemblingthescrewandthemotorshaft,thefollowingthreebasicdeviationsshouldbepaidattentionto.Theillustrationisasfollows:

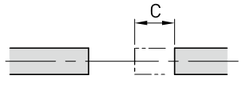
1、偏心（A）Eccentricity




2、偏角（B）Deflection




3、轴向位移（C）Axial displacement




若自行购买马达安装，安装联轴器时需特别注意下列几点：
◆ 锁付螺丝时相对应之锁固力，请参阅右表，切勿过度施力或是未锁紧。
◆ 在夹紧螺丝虽处于松动状态下，请确认连轴器是否能沿轴向和旋转方向轻轻移动。如果不能平稳移动的话，需重新调整2个轴的同心度（马达锁固螺丝）。
◆ 2个轴的同心度若差异太大时，将产生异音或是造成连轴器损坏。
※调整2个轴的对心若有问题时，请与本公司联络。

If you purchase the motor for installation by yourself, pay special attention to the following points when installing the coupling:
◆ Please refer to the right table for the corresponding locking force when locking screws. Do not apply excessive force or unlock them.
◆ Although the clamping screw is loose, please confirm whether the coupling can be light in the axial and rotational directions. Move lightly. If it can't move smoothly, it is necessary to readjust the concentricity of the two shafts (motor locking screws).
◆ If the concentricity of two shafts is too different, abnormal sound will be produced or the coupling will be damaged.
※If there is any problem in adjusting the alignment of two axes, please contact our company.

| 夹紧螺栓 The clamping bolt | 锁紧扭矩 Locking torque (N·m) |
|---|---|
| M2.5 | 1.0~1.1 |
| M2.5 | 1.0~1.1 |
| M3 | 1.5~1.9 |
| M4 | 3.4~4.1 |
| M4 | 3.4~4.1 |
| M5 | 7.0~8.5 |

## 联轴器参考资料 Reference data of coupling

| 型号 Model | 容许扭矩 Permissible torque [N·m] | 最大容许误差 Maximum permissible error | | | 最高转速 Max speed [min-1] | 扭转弹性 Torsional elasticity [N·m/rad] | 轴向弹性 Axial elasticity [N·m/rad] | 转动惯量 Moment of inertia [kg·m2] | 质量 Weight [kg] |
|---|---|---|---|---|---|---|---|---|---|
| | | 偏心 Eccentricity [mm] | 偏角 Declination [°] | 轴向位移 Axial displacement [mm] | | | | | |
| SFC-005SA2 | 0.5 | 0.02 | 0.5 | ±0.05 | 10000 | 500 | 140 | 0.25x10-6 | 0.007 |
| SFC-010SA2 | 0.8 | 0.02 | 1 | ±0.1 | 10000 | 1400 | 140 | 0.58x10-6 | 0.011 |
| SFC-020SA2 | 1.5 | 0.02 | 1 | ±0.15 | 10000 | 3700 | 64 | 2.36x10-6 | 0.025 |
| SFC-030SA2 | 4 | 0.02 | 1 | ±0.2 | 10000 | 8000 | 64 | 4.00x10-6 | 0.033 |
| | | | | | | | | 6.06x10-6 | 0.041 |
| | | | | | | | | 8.12x10-6 | 0.049 |
| SFC-035SA2 | 6 | 0.02 | 1 | ±0.25 | 10000 | 18000 | 112 | 18.43x10-6 | 0.084 |
| SFC-040SA2 | 10 | 0.02 | 1 | ±0.3 | 10000 | 20000 | 80 | 16.42x10-6 | 0.076 |
| | | | | | | | | 22.98x10-6 | 0.09 |
| | | | | | | | | 29.53x10-6 | 0.105 |
| SFC-050SA2 | 25 | 0.02 | 1 | ±0.4 | 10000 | 32000 | 48 | 54.88x10-6 | 0.156 |
| | | | | | | | | 77.10x10-6 | 0.185 |
| | | | | | | | | 99.33x10-6 | 0.214 |
| SFC-060SA2 | 60 | 0.02 | 1 | ±0.45 | 10000 | 70000 | 76.4 | 143.7x10-6 | 0.279 |
| | | | | | | | | 206.1x10-6 | 0.337 |
| | | | | | | | | 268.5x10-6 | 0.396 |
| SFC-080SA2 | 100 | 0.02 | 1 | ±0.55 | 10000 | 140000 | 128 | 709.3x10-6 | 0.727 |
| SFC-090SA2 | 180 | 0.02 | 1 | ±0.65 | 10000 | 100000 | 108 | 1227x10-6 | 0.959 |
| SFC-100SA2 | 250 | 0.02 | 1 | ±0.74 | 10000 | 120000 | 111 | 1858x10-6 | 1.181 |

※表中的转动惯量及质量是最大孔径时之值；表中的扭转弹性常数值仅为元件部分之值。
※The moment of inertia and mass in the table are the values at the maximum aperture; The values of torsional elasticity constants in the table are only the values of components.



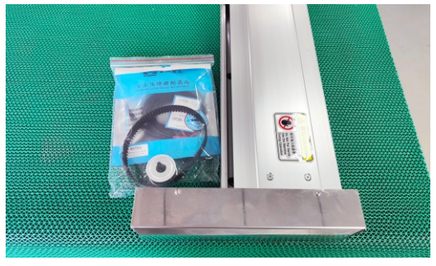
# 同步带轮的安装方法

## Installation of timing pulley and motor



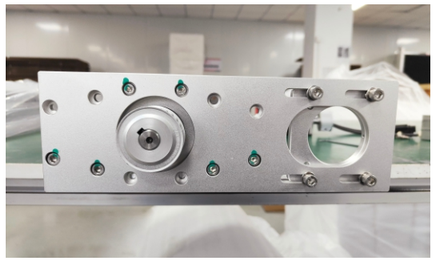
1、下图为螺杆模组的转折形式：成品模组+同步轮+同步带+槽型光电（同步带形式模组安装方法一致，可参考本文）。

1、The following figure shows the turning form of screw module: finished module+synchronous wheel+synchronous belt+groove photoelectric (the installation method of synchronous belt module is the same, please refer to this article).



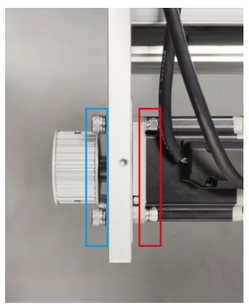
2、拆卸固定钣金的螺丝后，即可看到丝杆端同步轮我厂已安装好。只需要客户安装电机/减速机端的同步轮。

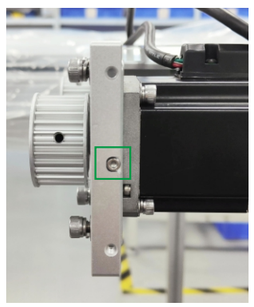
2、After removing the screws fixing the sheet metal, we can see that the screw end synchronous wheel has been installed in our factory. Only the customer needs to install the synchronous wheel at the motor/reducer end.



3、安装电机（一般电机包装内有螺丝提供），并锁紧固定电机的4颗螺丝（红色区域）之后拧松固定拉板的固定螺丝（蓝色和绿色区域）。

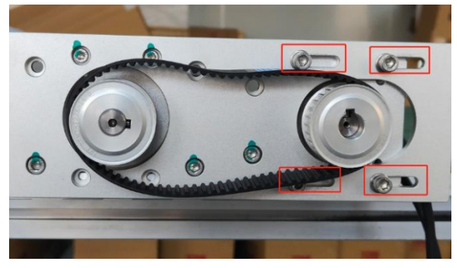
3、Install the motor (screws are provided in the general motor package), and after locking the four screws (red areas) that fix the motor, loosen the fixing screws (blue and green areas) that fix the pull plate.

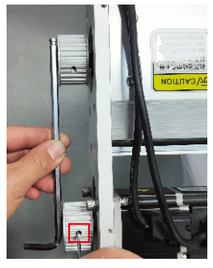




4、因拧松固定拉板的螺丝。电机端同步轮可左右来回活动。借助6MM六角扳手（不限于扳手）。

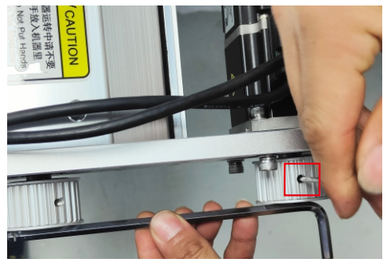
4、Loosen the screw fixing the pull plate. The synchronous wheel at the motor end can move back and forth left and right. With the help of a 6MM hex wrench (not limited to wrenches).

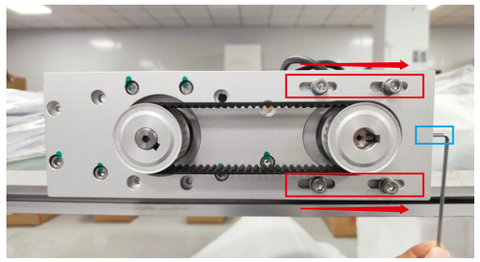




5、固定同步轮上紧固螺丝（一般情况下2个）。蓝色区域M3螺丝锁紧，红色区域螺丝会向右侧移动。蓝色区域张紧中，可用手感受同步带的张紧，也可使用专业设备测试张紧。最后在安装钣金折罩，固定螺丝即可。

5、Fastening screws on the synchronizing wheel (usually 2). The blue area M3 screw is locked, and the red area screw will move to the right. In the blue area, feel is available. When the timing belt is tensioned, you can also use professional equipment to test the tension. Finally, install the sheet metal folding cover and fix the screws.





玖钧传动 Motion Control



# 使用安全注意事项

## Safety use and cautions

◆ 以下为几条建议以防产品使用过程中产生问题。
Here are a few Suggestions to prevent problems during product use.

为防止事故发生及安全维护，请使用本公司产品前，必须了解产品的特性和使用条件、安装说明。
In order to prevent accidents and saf'ety maintenance, before you use the company's product,you must understand the characteristics of the products and use conditions,installation instructions.

请在选型的参数范围内使用本型号的产品，不可超出参数范围使用，否则会造成不可预知的危险。如果是特殊条件使用，必须确认在可控安全性能之内，方能使用，对产品参数如有疑问，在未使用之前，可咨询本公司相关技术。
Please use the product of this model within the selected parameter range, and do not use it beyond the parameter range, otherwise it will cause unpredictable danger. If it is used under special conditions, it must be confirmed that it is within the controllable safety performance before it can be used. If you have any questions about the product parameters, you can consult the relevant technology of our company before you use it.

请勿私自拆卸本产品结构，功能做分解及改造，如因人为造成的一切原因，本公司不负责产品故障造成的损失。
Please do not disassemble the structure and function of this product without permission, and decompose and transform it. For all reasons caused by man-made, our company will not be responsible for the loss caused by product failure.

请注意：当产品为垂直安装的时候，请注意拆卸马达时，滑座物件是否会自行下降，建议拆卸的时候将滑座物件下降到最低端再拆卸。
Please note: When the product is installed vertically, please pay attention to whether the slide object will drop by itself when the motor is disassembled. It is recommended to remove the slide object. Lower to the lowest end before disassembly.

产品运行前，先检查电缆线端子是否接触良好，否则会导致电机发热发烫，运行不畅。
Before running the product, check whether the cable terminals are in good contact or not, otherwise the motor will become hot and run poorly.

调试马达参数的时候需要考虑到惯性及加减速度等原因，先手动控制，来回点动，防止调试不适当，撞坏物件。不允许手及其它物体接触，保持一定安全距离，防止造成误伤。
When debugging the parameters of the motor, we need to consider the reasons of inertia, acceleration and deceleration. We should control the motor manually and move it back and forth to prevent the inappropriate debugging and damage the object. It is not allowed to contact hands and other objects to maintain a safe distance and prevent accidental injury.

当选用螺杆传动产品的时候，如超出螺杆细长比参数，可能会发生共振现象，此时应降低移动速度。如选用皮带传动产品的时候，如电机报警，产品运行不动，此时因加减速机，调节电机刚性，加大扭矩，从而平稳运行。
When the screw drive product is selected, if the slenderness ratio parameter of the screw exceeds, resonance may occur, so the moving speed should be reduced. Choose a belt. When the product is driven, such as the motor alarm, the product will not move. At this time, the reducer is added to adjust the rigidity of the motor and increase the torque, so as to run smoothly.

安装本产品时，请务必确认所有的螺丝均已按要求锁紧，否则产品运行时可能会发生危险。
When installing this product, please make sure that all screws are locked as required, otherwise the product may be in danger during operation.

请不要在接通电源的情况下进行产品拆装或零部件拆装，否则可能发生触电、故障或其它危险。
Please do not disassemble the product or parts when the power is turned on, otherwise electric shock, malfunction or other dangers may occur.

禁止撕除警告标示，或者警告标示被其它物品遮挡，否则可能因为没有看到警告而导致事故发生。
It is forbidden to tear off the warning signs, or the warning signs are blocked by other objects, otherwise the accident may occur because you don't see the warning.

本注意事项无法完全涵盖所有的问题，请务必详细了解产品及其使用说明，并遵守相关安全守则，做好必要保护措施，以免造成产品损坏或导致人身安全问题。如有其它相关问题，可咨询本公司。
This note can not cover all the problems. Please be sure to understand the product and its instructions in detail. comply with relevant safety codes, and take necessary protective measures to avoid product damage or personal safety problems. If you have any other related questions, you can consult us.